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DAVID S. ROSENZWEIG  
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May 17, 2004

Mary Cottrell, Secretary  
Department of Telecommunications and Energy  
One South Station, 2<sup>nd</sup> Floor  
Boston, Massachusetts 02110

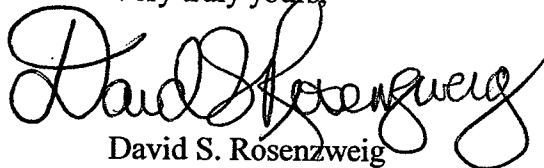
Re: NSTAR Electric, D.T.E. 03-121

Dear Secretary Cottrell:

Enclosed for filing in the above-referenced matter is an original and nine (9) copies of NSTAR Electric's responses to the Record Requests on the accompanying list.

Thank you for your attention to this matter.

Very truly yours,

  
David S. Rosenzweig

Enclosures

cc: William Stevens, Hearing Officer  
John-Cope Flanagan, Hearing Officer  
Service List

**Response to Record Requests**

Record Request AG-5  
Record Request DOER-1  
Record Request DOER-2  
Record Request DTE-14  
Record Request DTE-15  
Record Request DTE-16  
Record Request DTE-19  
Record Request DTE-22  
Record Request TEC-3

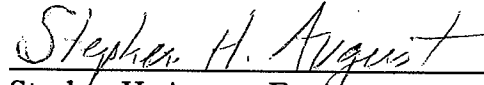
**COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

_____	)	
Boston Edison Company	)	
Cambridge Electric Light Company	)	
Commonwealth Electric Company	)	
d/b/a NSTAR Electric	)	
_____	)	

D.T.E. 03-121

**CERTIFICATE OF SERVICE**

I certify that I have this day served the foregoing documents upon the service list in the above-docketed proceeding in accordance with the requirements of 220 C.M.R. 1.05.

  
\_\_\_\_\_  
Stephen H. August, Esq.  
Keegan, Werlin & Pabian, LLP  
265 Franklin Street  
Boston, MA 02110  
(617) 951-1400

Dated: May 17, 2004

Record Request AG-5 (Tr. 7, at 1181)

Please provide a copy of existing standby service agreement(s) for the Company.

Response

Please see Attachment RR-AG-5.

**CAMBRIDGE ELECTRIC LIGHT COMPANY  
APPLICATION AND AGREEMENT FOR SERVICE  
STANDBY - MAINTENANCE - SUPPLEMENTAL**

Date Taken \_\_\_\_\_ Account No. \_\_\_\_\_

Customer Name \_\_\_\_\_

Service Address \_\_\_\_\_

CSZ \_\_\_\_\_

**A. Availability**

Service is available to applicants who have an alternative source of power and who request standby, maintenance, or supplemental service. The Company must have the ability to meter the alternative source of power. A Customer requesting one or more of these backup services is required to take service under this rate schedule if the Customer's alternative source of power:

- (1) exceeds 100 kilowatts, and
- (2) supplies at least 20 percent of the Customer's total integrated electrical load.

Standby, Maintenance and Supplemental Service are subject to both the Company's printed requirements and the Company's Terms and Conditions, each as in effect from time to time.

**B. Character of Service**

The Company provides 60 hertz, three phase, alternating current service at primary voltage under this rate schedule. As available and at the Company's option, such service shall be supplied at approximately 13,800 volts. All electricity supplied shall be for the exclusive use of the Customer and shall not be resold. The Customer shall be subject to the provisions of the Company's Requirements For Interconnection as they exist from time to time.

### **C. Customer Facilities**

Description and Location of Alternative Source of Power -

Dependent upon the size of the facilities and the quantity of kVa provided by the alternative source of power, provisions can be made for determining billing demand.

### **D. Determination of Billing Determinants**

Standby Contract Demand refers to the specified maximum firm Replacement Demand that the Customer may take from the Company. The Standby Contract Demand shall be specified separately for the winter (November - March) and summer periods (April - October) and may not exceed the Customer's Alternative Source of Power.

Standby Contract Demand for the winter period is \_\_\_\_\_

Standby Contract Demand for the summer period is \_\_\_\_\_.

Replacement Demand is defined under the Company's Otherwise Applicable Rate Schedule or (check one):

(i) \_\_\_\_\_ Large General Time-of-Use/Secondary Service Rate G-2 ("Rate G-2")

Supplemental Demand is also defined under the Otherwise Applicable Rate Schedule as noted above.

### **E. Rate Per Month**

The Customer agrees to pay in accordance with the various terms of this service agreement as specified in the Rate.

The Customer shall be assessed no more than one Administrative Charge for Standby, Maintenance and Supplemental Service. Therefore, if a Customer receives one such service, no additional Administrative Charge will be assessed for either or both of the remaining two services.

The Customer shall be assessed no more than one Customer Charge for Standby, Maintenance, and Supplemental Service. Therefore, if a Customer receives one such service, no additional Customer Charge will be assessed for the second service. The applicable Customer Charge shall be that contained in the Standby and Maintenance Service Rates.

If the Customer also receives Maintenance Service from the Company, the following will apply during the period when Maintenance Service is taken: (1) the Distribution Capacity Charge will apply only if such charge is not otherwise billed under Standby Service during the billing month;

and (2) the maximum Replacement Demand used to calculate the Generation and Transmission Capacity Charge shall be zero.

**F. Metering**

All electricity supplied to the Customer by the Company will be measured by meters installed at a single location, except where the Company deems it impractical to deliver electricity through one service, in which case the measurement of electricity may be accomplished by totaling meters from two or more locations.

The Customer shall furnish at its expense a connection whereby the Company can meter the Customer's Alternative Source of Power at the interconnection of the Alternative Source of Power with the Customer's internal load.

\_\_\_\_\_  
Customer signature  
(duly authorized officer)

\_\_\_\_\_  
Accepted by Company

\_\_\_\_\_  
Title

Effective date: \_\_\_\_\_

Doc. #7896

Record Request DOER-1 (Tr. 7, at 1243-1244)

Please identify on a revised Attachment DTE-7-15, page 1, the size of the generators on the substations that the circuits are supplied from and the amount of generation that is associated with each substation.

Response

The table below shows the substation and circuit that each generator is connected to.

List of Connected Generators by Substation		
Sum of Size of Generator		
STATION No.	Circuit No.	Total (MW)
	4293-03	113
4 Total		113
110	2004	100
110 Total		100
211	211-H8	300
	380-01	50
211 Total		350
240	2305	50
240 Total		50
250	3003	300
	14N29	150
	250-H5	50
	445-H4	150
250 Total		650
282	282-H3	50
282 Total		50
320	320-H2	50
	351-04	750
320 Total		800
329	3615	300
329 Total		300
342	278-03	50
342 Total		50
402	1603	500
	1605	100
402 Total		600
416	416-H3	112



416 Total		112
433	433-H3	1000
	433-H8	25
433 Total		1025
467	124-06	50
467 Total		50
483	5212	300
	6703	50
	466-1482H1	100
	466-1482H2	300
	483-H1	50
483 Total		800
488	592-70XYH1	212
488 Total		212
492	4901	50
	4908	50
492 Total		100
496	6002	300
	284-04	100
496 Total		400
533	322-1397H1	112
533 Total		112
Grand Total		5874

Record Request DOER-2 (Tr. 7, at 1248-1249)

Please identify the percentage of NSTAR Electric peak demand associated with the NEMA/Boston zone, which ISO considers in its locational-marginal-pricing determinations.

Response

The table below shows the requested calculation for the most recent peak load conditions:

**NSTAR 2003 Peak** (all data shown in MW)  
4,298.6 08/22/03 hr ending 15

**Coincident Loads By Zone By Operating Company**

2,815.2 BECo NEMA  
310.2 Cambridge (NEMA)  
-----  
3,125.4 Total NEMA

913.424 Commonwealth (SEMA)  
259.7344 BECO SEMA  
-----  
1,173.158 Total SEMA

0.727074 NEMA  
0.272916 SEMA

Record Request DTE-14 (Tr. 7, at 1352-1353)

Please provide the annual peak load for the customers that qualify for the standby rate that are listed on Exhibits DTE-2-3, DTE-3-1 and DTE-4-1.

Response

Please refer to Attachment RR-DTE-14.

NSTAR Electric					
Attachment RR-DTE-14					
Boston Edison in reference to Attachments AG-1-19(A-C) & AG-1-19(G)					
AG-1-19		Estimated	Estimated	DTE-2-3	
Reference	Design	Annual	Lost	Reference	Annual
Customer	Capacity(kW)	Run Hrs	kWh	Customer	Max BQ
1	810	3,400	2,754,000	14,15,17,18	748
2	1,800	900	1,620,000	2	1,830
3	70	4,000	280,000	31	2,446
4	600	8,000	4,800,000	6	512
5	250	8,460	2,115,000		1,862
6	250	8,560	2,140,000		552
7	75	3,000	225,000	25	984
8	225	7,500	1,687,500	7	3,840
9	425	0	0	10,11,12,13	238
10	75	4,500	337,500	8	664
11	75	7,800	585,000	19	128
12	105	5,840	613,200	9	795
13	200	7,000	1,400,000	4	30,863
14	10,000	7,100	71,000,000	3	14,754
15	60	8,322	499,320		104
16	60	8,322	499,320		228
17	200	8,752	1,750,400	21	3,545
Commonwealth Electric Company in reference to Attachment AG-1-19(D)					
		Estimated	Estimated	DTE-3-1	
	Design	Annual	Lost	Reference	Annual
Customer	Capacity(kW)	Run Hrs	kWh	Customer	Max BQ
1	200	8,760	1,752,000		451
2	1,050	8,712	9,147,600	8	1,739
3	200	8,229	1,645,800	1	1,621
4	60	4,000	240,000	28	84
5	150	500	75,000	6	NA

Record Request DTE-15 (Tr. 7, at 1361)

Please provide sample tariff language that would establish a one-time exemption from an increase in contract demand levels as a result of testing a new unit.

Response

The following language can be added at the end of page 2 of each respective tariff:

If the customer installs new generation capacity to replace existing capacity, the contract demand will be reset equal to the capacity of the new generation upon notification by the Customer that the replaced capacity is no longer in service.

Record Request DTE-16 (Tr. 7, at 1361-1362)

Please provide sample tariff language for the provision of maintenance schedules for distributed-generation loads greater than one megawatt.

Response

Please refer to the following sample standby tariff language:

**Maintenance Service:**

A Customer receiving Standby and Supplemental Service under this rate schedule having a Standby Contract Demand greater than 1,000 kW is required to provide the Company with a schedule of the maintenance requirements of its Generation Unit(s). The schedule must include the dates and times for the beginning and ending of all planned outages. The schedule should be submitted annually on October 1 of each year for maintenance service for the following calendar year. A Customer may revise the schedule one (1) month prior to the effective date of the outage. The Company will utilize such schedule for distribution operational planning functions.

Record Request DTE-19 (Tr. 7, at 1378)

Please provide the multiplying factors used by the Company when adjusting the Company's forecast for extreme weather conditions.

Response

The adjustment factors for each substation are shown below:

Substation	Sub-Regional Forecast Adj Factor
Andrew Square	1.03
Baker St	1.05
Brighton	1.02
Carver St	1.02
Chatham	1.01
Dorchester	1.03
Dover	1.10
Hawkins	1.02
Scotia St	1.02
Sudbury	1.04
Trapelo Road	1.04
Watertown	1.03
High St	1.01
Hopkinton	1.00
Hyde Park	1.06
Kingston St	1.02
Lexington	1.01
Mystic	1.02
W Framing	1.08
Canton	1.04
Leland St	1.07
L St	1.02
Medway	1.06
Needham	1.11
Sherborn	1.08
Walpole	1.05
Waltham	1.00
Woburn	1.05
Burlington	1.03
Chelsea	1.01
Maynard	1.01
Newton	1.07
N Woburn	1.03
Somerville	1.01
Speen St	1.07
N Lexington	1.02
Cambridge	1.03

Substation	Sub-Regional Forecast Adj Factor
Hatchville	1.02
Martha's Vineyard	1.02
Rochester	1.00
West Pond	1.00
Acushnet	1.00
Arsene	1.00
Bell Rock	1.00
Cross Road	1.00
Duxbury	1.00
Falmouth	1.02
Fisher Rd	1.00
Harwich	1.04
Hyannis Junction	1.05
Kingston	1.00
Manomet	1.00
Marshfield	1.00
Mashpee	1.04
Orleans	1.00
Otis Bulk	1.04
Pine St	1.00
Sandwich	1.04
Tremont	1.00
Valley	1.00
Wareham	1.00
Wellfleet	1.04
Wing Lane	1.00
Industrial Park	1.00
Crystal Spring	1.00
PAVE PAWS	1.00



Record Request DTE-22 (Tr. 7, at 1396-1397)

- (a) Using the data provided in Exhibit DTE-7-11, provide a calculation for each of the histograms shown in Exhibit NSTAR-HCL-8 that weights the decile point for rates G-2, G-3 and T-2.
- (b) Provide the calculation in the case of NSTAR for the 14 customers shown in Exhibit TEC-3-5.
- (c) Calculate the minimum-divided-by-the-maximum billing quantity used by Ms. Saunders and the data shown in Exhibit DTE-7-11.

Response

- (a) Please see Attachment RR-DTE-22(a).
- (b) Please see Attachment RR-DTE-22(b).
- (c) Please see Attachment RR-DTE-22(c).

# NSTAR Electric Average Customer Weighted Decile

## Boston Edison Rate G-3

<u>Decile</u>	<u>Count</u>	<u>Weighted</u>
0.1	0	-
0.2	0	-
0.3	2	0.00143
0.4	2	0.00191
0.5	10	0.01193
0.6	21	0.03007
0.7	35	0.05847
0.8	124	0.23675
0.9	164	0.35227
1	61	0.14558
Total	419	0.83842

## Boston Edison Rate T-2

<u>Decile</u>	<u>Count</u>	<u>Weighted</u>
0.1	0	-
0.2	4	0.00040
0.3	15	0.00224
0.4	21	0.00419
0.5	50	0.01247
0.6	123	0.03681
0.7	280	0.09776
0.8	528	0.21067
0.9	719	0.32274
1	265	0.13217
Total	2005	0.81945

## Commonwealth Electric Rate G-3

<u>Decile</u>	<u>Count</u>	<u>Weighted</u>
0.1	0	-
0.2	0	-
0.3	1	0.00652
0.4	0	-
0.5	1	0.01087
0.6	3	0.03913
0.7	2	0.03043
0.8	11	0.19130
0.9	20	0.39130
1	8	0.17391
Total	46	0.84348

## Commonwealth Electric Rate G-2

<u>Decile</u>	<u>Count</u>	<u>Weighted</u>
0.1	0	-
0.2	0	-
0.3	1	0.00083
0.4	1	0.00111
0.5	4	0.00556
0.6	14	0.02333
0.7	68	0.13222
0.8	113	0.25111
0.9	129	0.32250
1	30	0.08333
Total	360	0.82000

## Cambridge Electric Rate G-3

<u>Decile</u>	<u>Count</u>	<u>Weighted</u>
0.1	0	-
0.2	1	0.00066
0.3	1	0.00100
0.4	5	0.00664
0.5	4	0.00664
0.6	21	0.04186
0.7	46	0.10698
0.8	102	0.27110
0.9	99	0.29601
1	22	0.07309
Total	301	0.80399

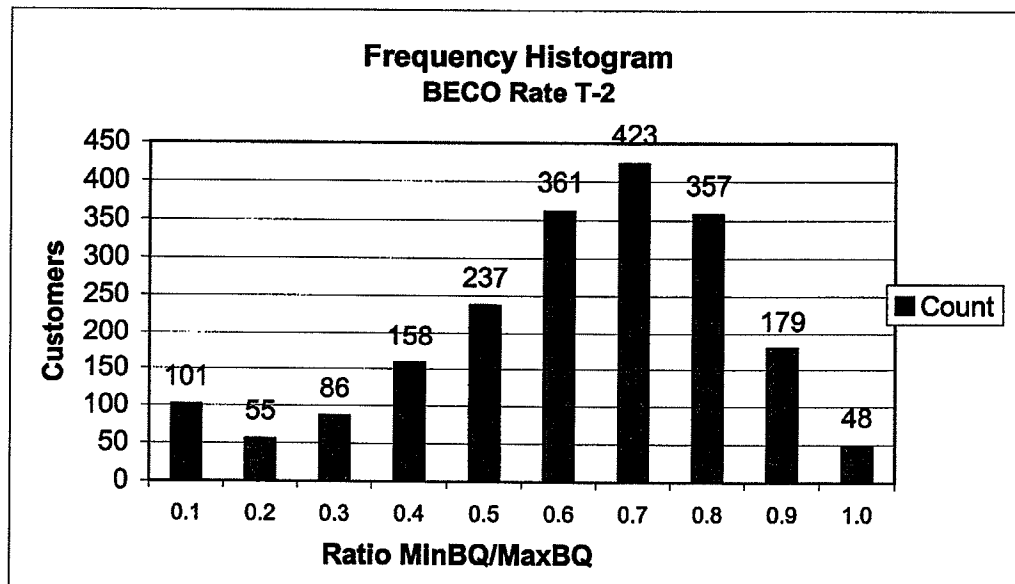
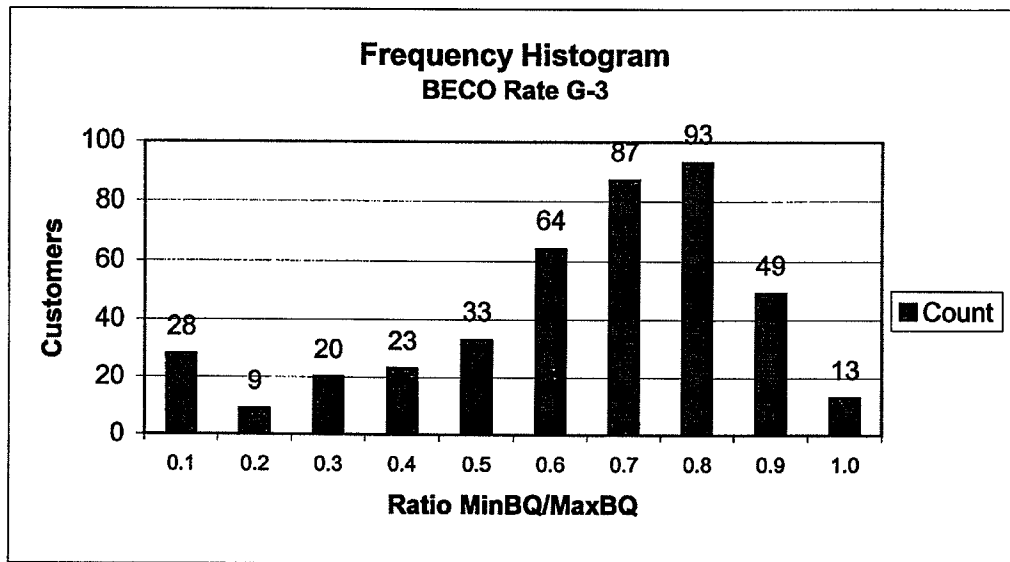
## Cambridge Electric Rate G-2

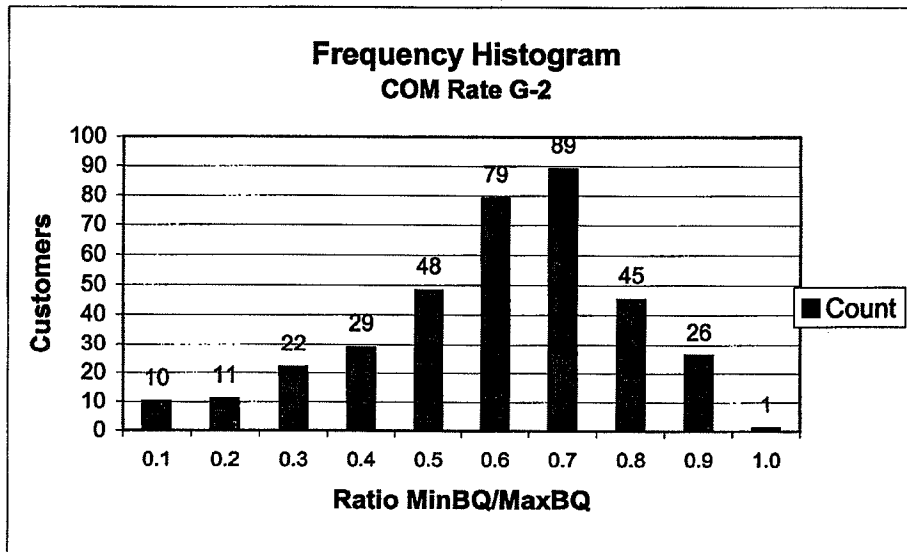
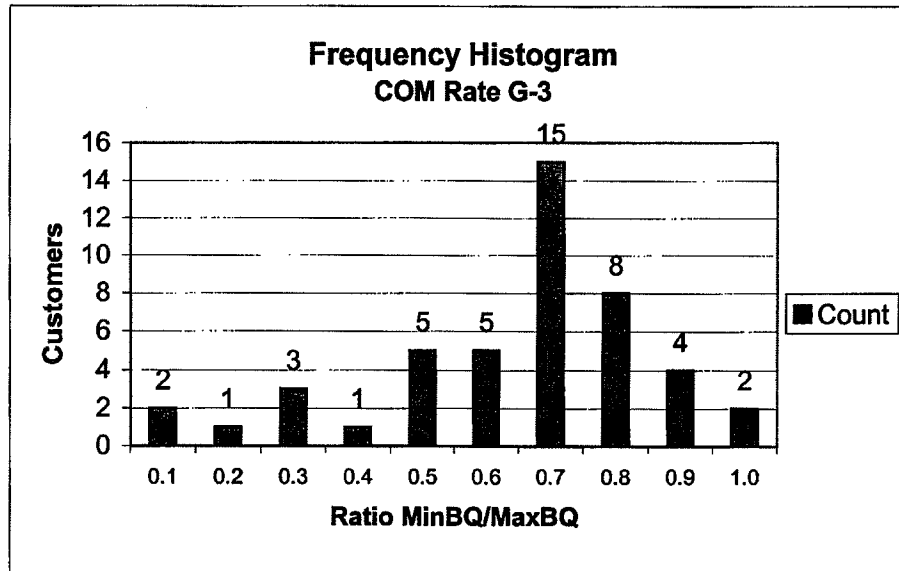
<u>Decile</u>	<u>Count</u>	<u>Weighted</u>
0.1	0	-
0.2	0	-
0.3	0	-
0.4	0	-
0.5	0	-
0.6	3	0.03273
0.7	7	0.08909
0.8	19	0.27636
0.9	22	0.36000
1	4	0.07273
Total	55	0.83091

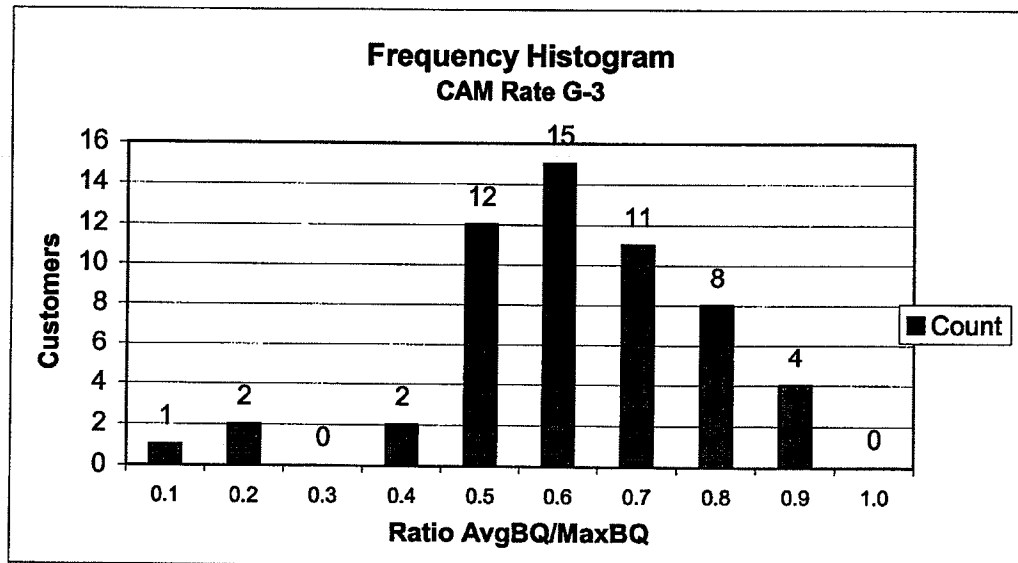
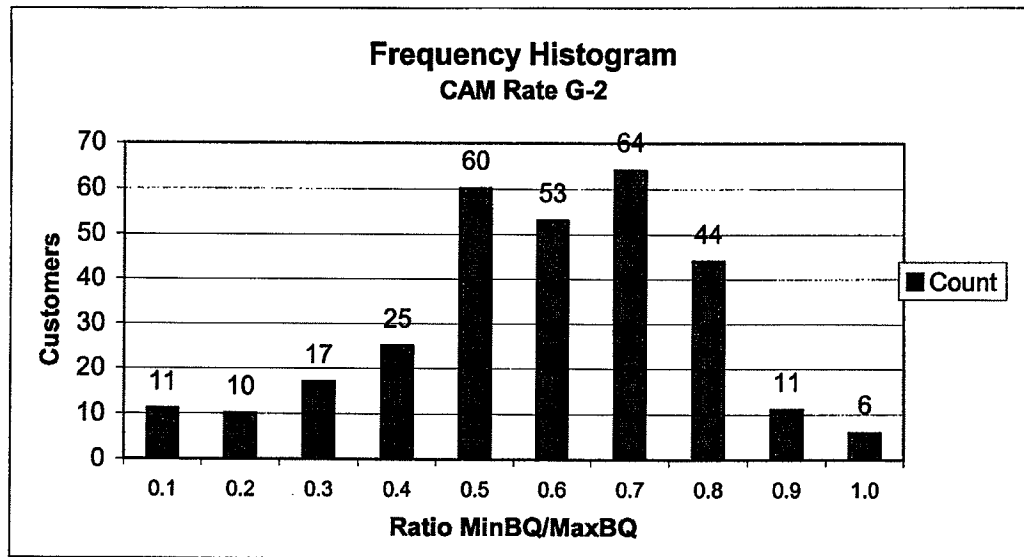
**NSTAR Electric**  
**Average Customer Weighted Decile**

**Existing On-Site Generation Customers**

<u>Decile</u>	<u>Count</u>	<u>Weighted</u>
0.1	0	0.00000
0.2	0	0.00000
0.3	1	0.02143
0.4	0	0.00000
0.5	0	0.00000
0.6	2	0.08571
0.7	4	0.20000
0.8	4	0.22857
0.9	2	0.12857
<u>1</u>	<u>1</u>	<u>0.07143</u>
Total	14	0.73571







NSTAR Electric  
Department of Telecommunications and Energy  
D.T.E. 03-121  
Record Request: **TEC-3**  
May 17, 2004  
Person Responsible: Henry C. LaMontagne  
Page 1 of 1

Record Request TEC-3 (Tr. 7, at 1200)

Please provide a copy of the exhibits and worksheets used to develop the distribution rates that were filed for effect on March 1, 1998.

Response

Please refer to the response to Information Request AG-1-4, Attachment (c).